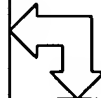FIGURE 1.

SoftChip Modem

MODEM
COTS V.34 28.8kbps (upgradeable to V90 56kbps or higher as "plug in" device)

Fixed Logic (FPGA or MP)
- Multiplexing/Demultiplexing data
- [add protocol layers as TCP/IP and H.323 to use as into an IP phone]

DOWNLOADING
Provides FPGA content downloading

Variable Logic (FPGA)
Functionality may be downloaded via modem

Functionality organized as sequential components in data processing stream. Component algorithms as following:
- Encode/Decode based on PGP
- DRM management with credentials accessed via modem
- ...
- Logic downloading protocol

Storing data as following:
- System identification
- System state (version and description of variable logic as ordered list of components)
- PGP public/private keys
- DRM (Digital rights management keys)

CODEC 1
COTS G723 algorithm 6.4kbps
Later may be embedded

PHONE PORT

CODEC 2
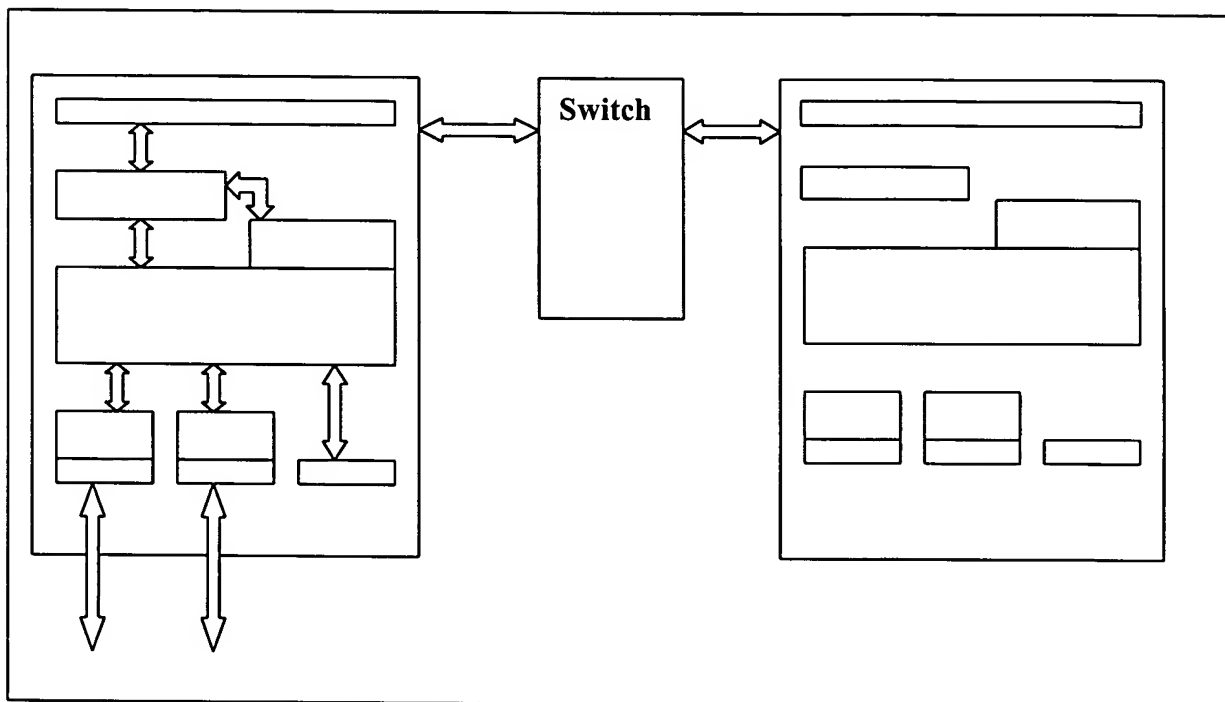COTS G723 algorithm 6.4kbps
Later may be embedded

PHONE PORT

DATA PORT

FIGURE 2.

Scenario #1 – one to one SCM

No additional environment required on the central Switch side. Each SCM may have more than one voice attached to it.

Scenario #2 – one SCM to two different destinations

Additional multiplexing environment required on the central Switch side.